

**AMENDMENTS TO THE CLAIMS**

The following is a complete listing of revised claims with a status identifier in parenthesis.

**LISTING OF CLAIMS**

1. (Currently Amended) A method for evaluating connections in an agile network comprising:

(a) for a switching node of said agile network, selecting a plurality of paths available between said switching node and all remaining nodes of said agile network;

(b) for an available path, selecting a plurality of ~~adequate~~ wavelengths according to a wavelength performance parameter;

(c) for each ~~adequate~~ selected wavelength, establishing ~~said a~~ test connection along said path; and

(d) at preset intervals, repeating step (c) for all ~~adequate~~ selected wavelengths, repeating steps (b) and (c) for all available paths, and repeating steps (a), (b) and (c) for all nodes of said agile network.

2. (Currently Amended) A method as claimed in claim 1, wherein said [~~adequate~~] plurality of wavelengths are wavelengths that can reach a respective remaining node.

3. (Original) A method as claimed in claim 1, performed with live traffic over said network.

4. (Currently Amended) A method as claimed in claim 1, wherein said [adequate] plurality of wavelengths are wavelengths that can reach a respective remaining node and are not used for live traffic.

5. (Original) A method as claimed in claim 1, wherein said step (c) comprises providing an alarm whenever said test connection cannot be established along said path.

6. (Original) A method as claimed in claim 5, wherein said alarm identifies the location of a fault at one of an add structure of said switching node and a drop structure of said other node.

7. (Original) A method as claimed in claim 5, wherein said alarm identifies the location of a fault at a switch passed through by said test connection.

8. (Original) A method as claimed in claim 1, wherein said step (c) comprises measuring a performance parameter of said path and storing said performance parameter in a measurement database, whenever said test connection is established along said available path.

9. (Original) A method as claimed in claim 8, further comprising calibrating a Q calculator based on said measured performance parameter.

10. (Original) A method as claimed in claim 8, further comprising adjusting a tunable parameter of an optical device of said available path based on said performance parameter.

11. (Original) A method as claimed in claim 8, further comprising setting a target parameter for one or more optical devices of said available path based on said performance parameter.

12. (Original) A method as claimed in claim 8, further comprising provisioning an optical device of said path which has a fixed parameter selected based on said performance parameter.

13. (Original) A network and element management system for a wavelength switched optical network comprising:

at a switching node, a wavelength exerciser for detecting a test path between said switching node and another switching node; and

a call management module for setting up a connection along said test path.

14. (Original) A system as claimed in claim 13, further comprising a Q calculator for determining the Q factor of said test connection.

15. (Original) A system as claimed in claim 14, further comprising a database for storing the Q factor of said test connection.

16. (Original) A system as claimed in claim 14, further comprising a database for storing a set of performance parameters of said test connection, collected by a plurality of optical devices in said test path.

17. (Original) A system as claimed in claim 13, wherein said call manager sets-up a live connection along a selected path based on a connection request, and sets – up said test connection as a background task on request from said wavelength exerciser.

18. (Original) A wavelength exerciser for an agile network, comprising:

a path selector for selecting a test path between a source node and a destination node;

a wavelength assignment module for assigning successively a plurality of wavelengths to said test path for establishing a test connection along said test path;

a fault finder for detecting a fault whenever said test connection fails;  
and

a test connection controller for controlling operation of said path selector,  
said wavelength assignment module and said fault finder.

19. (Previously Presented) A network and element management system for a wavelength switched optical network comprising:

at a switching node, a wavelength exerciser for detecting a test path between said switching node and another switching node based on cost and performance factors; and

a call management module for setting up a connection along said test path.

20. (Previously Presented) A wavelength exerciser for an agile network, comprising:

a path selector for selecting a test path between a source node and a destination node based on cost and performance factors;

a wavelength assignment module for successively assigning a plurality of wavelengths to said test path for establishing a test connection along said test path;

a fault finder for detecting a fault whenever said test connection fails;  
and

a test connection controller for controlling operation of said path selector,  
said wavelength assignment module and said fault finder.